

Abstract of the Disclosure:

A machine processing printing-material sheets contains a first sheet transport drum and a second sheet transport drum disposed immediately after the first sheet transport drum in a sheet transport direction. The first sheet transport drum has gripper systems which describe a gripper flight circle during its rotation and a drum profile deviating substantially from a circular shape with outer contour regions running between the gripper systems and set back from the gripper flight circle.

10 The second sheet transport drum has a sheet support surface with pneumatic grooves formed therein. The sheet support surface is composed of a first and second comb segments each with segment prongs. The pneumatic grooves are introduced into the segment prongs of at least one of the comb segments.

15 The pneumatic grooves are preferably introduced both into the segment prongs of the first comb segment and into the segment prongs of the second comb segment.

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